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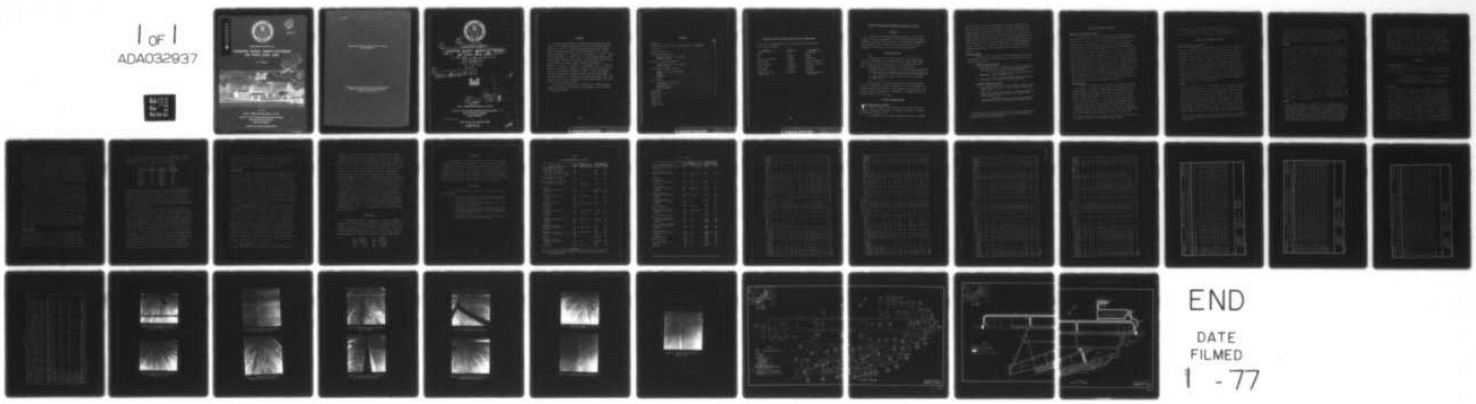

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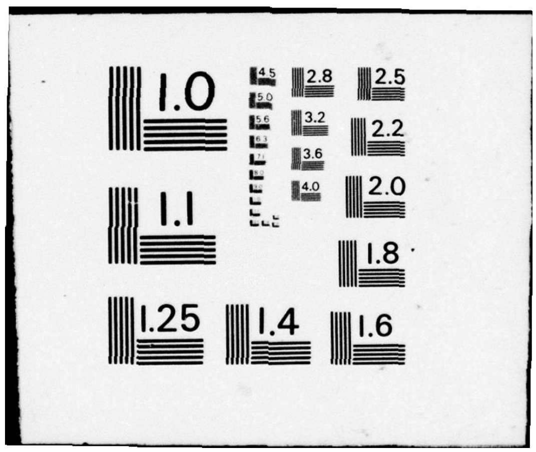
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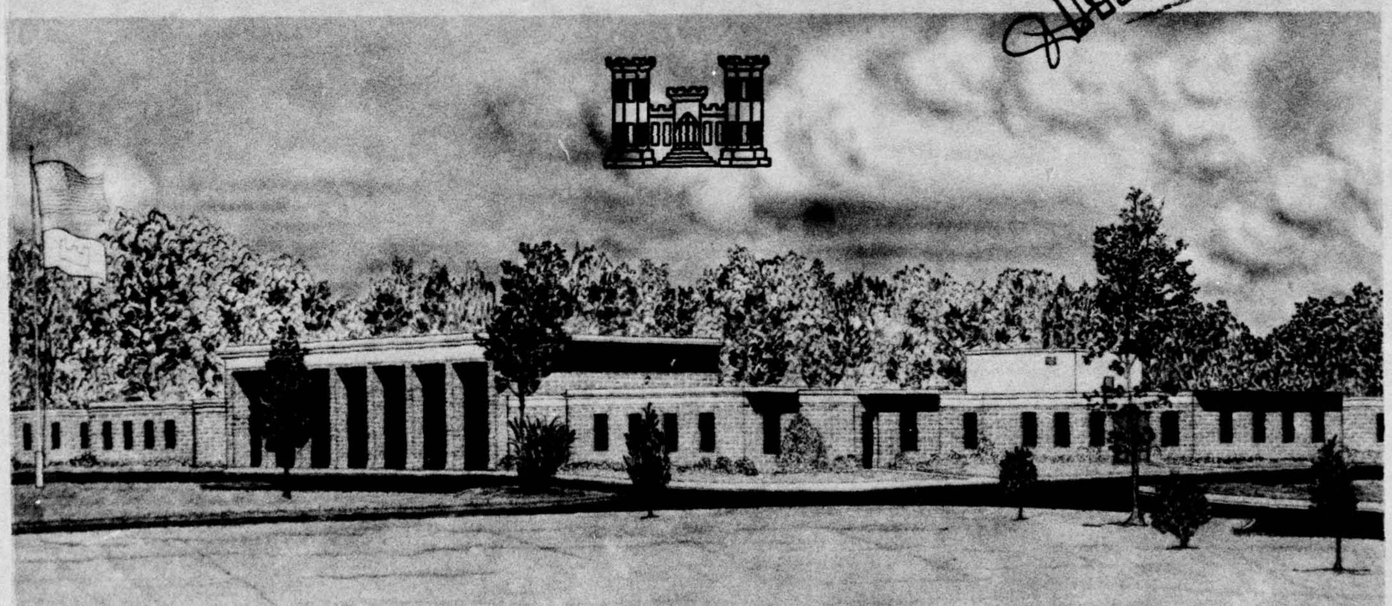
MISCELLANEOUS PAPER S-73-55

CONDITION SURVEY, WRIGHT-PATTERSON AIR FORCE BASE, OHIO

by

R. D. Jackson



June 1973

Sponsored by Office, Chief of Engineers, U. S. Army

Conducted by U. S. Army Engineer Waterways Experiment Station
Soils and Pavements Laboratory
Vicksburg, Mississippi

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by

(10) R. D. Jackson

(14) WES-MP-S-73-55

(12) 34p.

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ARMY-MRC VICKSBURG, MISS.

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Foreword

The study reported herein was conducted under the general supervision of the Engineering Design Criteria Branch, Soils and Pavements Laboratory, of the U. S. Army Engineer Waterways Experiment Station (WES), Vicksburg, Mississippi. Personnel involved in the condition survey were Messrs. R. D. Jackson, P. S. McCaffrey, Jr., and W. J. McKay of the WES and Mr. J. C. Hart of the U. S. Army Engineer Division, New England (NED), Waltham, Massachusetts. The main portion of this report was prepared by Mr. Jackson under the general supervision of Messrs. J. P. Sale, R. G. Ahlvin, R. L. Hutchinson, and P. J. Vedros of the Soils and Pavements Laboratory. That portion of the study pertaining to frost action was carried out by the U. S. Army Cold Regions Research and Engineering Laboratory (CRREL), Hanover, New Hampshire, with the assistance of the Foundations and Materials Branch, NED. The section of this report concerning frost action was prepared by Mr. Hart and by Mr. G. D. Gilman of CRREL.

COL Ernest D. Peixotto, CE, was Director of the WES during the conduct of the study and preparation of the report. Mr. F. R. Brown was Technical Director.

Contents

Conversion Factors, British to Metric Units of Measurement

British units of measurement used in this report can be converted to metric units as follows:

Multiply	By	To Obtain
inches	2.54	centimeters
feet	0.3048	meters
miles (U. S. statute)	1.609344	kilometers
square inches	6.4516	square centimeters
miles per hour	1.609344	kilometers per hour
pounds (mass)	0.45359237	kilograms
kips (mass)	453.59237	kilograms
pounds (force) per square inch	0.6894757	newtons per square centimeter

CONDITION SURVEY, WRIGHT-PATTERSON AIR FORCE BASE, OHIO

Authority

1. Authority for conducting condition surveys at selected airfields is contained in amendment to FY 1972 RDTE Funding Authorization (MFS-MC-5, 16 February 1972), subject: "Air Force Airfield Pavement Research Program," from the Office, Chief of Engineers, U. S. Army, Directorate of Military Construction, dated 18 February 1972.

Purpose and Scope

2. The purpose of this report is to present the results of a condition survey performed at Wright-Patterson Air Force Base (WAFB), Ohio, during 31 August-5 September 1972. The following three major areas of interest were considered in this condition survey:

   a. The structural condition of the primary airfield pavements;

   b. The condition of pavement repairs and the types of maintenance materials that have been used at this airfield; and

   c. Any detrimental effects of frost action to the pavement facilities.

3. This report is limited to a presentation of visual observations of the pavement conditions, discussion of these observations, and pertinent remarks with regard to the performance of the pavements. No physical tests of the pavements, foundations, or patching materials were performed during this survey.

Pertinent Background Data

General description of airfield

4. WAFB is located in Greene County, Ohio, on State Route No. 4, northwest of Dayton and adjacent to the town of Fairborn. A vicinity map is shown in plates 1 and 2.

5. In August 1972, the airfield facilities consisted of a NE-SW

(23R-05L) runway, two parallel taxiways, a series of connecting taxiways, parking aprons, two warm-up aprons, a SAC operational apron, and nose dock stubs. The runway was 12,600 ft* long and 300 ft wide; one parallel taxiway was 150 ft wide, and the other was 75 ft wide; the connecting taxiways were from 50 to 150 ft wide and of various lengths; the parking aprons, the nose dock stubs, and the warm-up aprons were of various sizes; and the SAC operational apron was 700 ft wide and approximately 2,700 ft long. A layout of the airfield is shown in plate 1. A pavement plan indicating the type pavement on each facility is shown in plate 2.

<u>Previous reports</u>

6. Previous reports concerning the airfield pavements at WAFB are listed below. Pertinent data were extracted from them for use in this condition survey report.

7. <u>Condition survey reports</u>:

<u>a</u>. Ohio River Division Laboratories, CE, "Report of Special Investigation of Airfields Pavements, Wright-Patterson Air Force Base, Ohio," October 1950, Cincinnati, Ohio.

<u>b</u>. __________, "Condition Survey Report, Wright-Patterson Air Force Base," 1951, Cincinnati, Ohio.

<u>c</u>. __________, "Condition Survey Report, Wright-Patterson Air Force Base, Ohio," August 1962, Cincinnati, Ohio.

8. <u>Pavement evaluation reports</u>:

<u>a</u>. U. S. Army Engineers, Wright Field Office, "Report on Airfield Pavement Evaluation, Patterson Field," March 1944, Dayton, Ohio.

<u>b</u>. Ohio River Division Laboratories, CE, "Airfield Evaluation Report, Wright-Patterson Air Force Base, Ohio," March 1957, Mariemont, Ohio.

<u>c</u>. __________, "Pavement Evaluation Report, Wright-Patterson Air Force Base, Ohio," February 1960, Cincinnati, Ohio.

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* A table of factors for converting British units of measurement to metric units is presented on page vii.

History of Airfield Pavements

Design and construction history

9. Details of the construction history of the airfield pavements are presented in table 1. An 8-in. portland cement concrete (PCC) parking apron was constructed in 1932. Design criteria for pavements constructed during the period 1942-44 were for the following loadings: parking apron E, 50,000-lb wheel load; taxiway 1, 41,000-lb wheel load with a 25 percent impact factor; taxiways 2, 2A, 2B, 5, 6, 7, and 8, parking aprons A, B, D, F, and G, and the extension to taxiway 8, 60,000-lb wheel load with a 25 percent impact factor for the taxiways; and parking apron H, 12,000-lb wheel load (an H-15 truck loading). Pavements constructed during 1947-48 were designed for a 150,000-lb, single-wheel load. Pavements constructed during 1952 were designed for a 25,000-lb, single-wheel load with a 100-sq-in. contact area per tire. Pavements constructed during 1956 were of the same design as those constructed during 1947-48. Design criteria for pavements constructed during 1959 specified a 265,000-lb gear load on twin-twin wheels spaced 37-62-37 in., with a contact area of 267 sq in. per tire. Pavement thicknesses, descriptions, and other details are presented in table 2.

Traffic history

10. Records of aircraft traffic at WAFB are incomplete; however, it is reasonable to assume that the airfield has received at least the following amounts of traffic. From November 1956-December 1959, the following numbers of average monthly cycles* were applied per cited aircraft weight classification: 6 to 15 kips, 1730; 16 to 30 kips, 532; 31 to 56 kips, 458; 57 to 76 kips, 260; 77 to 122 kips, 38; 123 to 135 kips, 145; over 135 kips, 6. From January 1960-December 1968, it is estimated that the heavy-load pavements received 60 to 80 cycles per month of B-52 traffic. From January 1969-July 1972, the airfield received an average of more than 9300 cycles per month of aircraft traffic. SAC aircraft averaged 245 cycles per month, and there were

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* A cycle of operation is one takeoff and one landing.

approximately 60 to 80 cycles per month by B-52 aircraft.

11. Approximately 95 percent of the landings and takeoffs are from the NE (23R) end of the runway due to the prevailing winds.

Conditions of Pavement Surfaces

Pavement inspection procedure

12. The following procedure was used in conducting the inspection of the rigid pavements. Representative features were selected for detailed inspection. The features were then inspected slab* by slab, and the defects were recorded. The locations of the individual features, the inspection starting points, and the directions in which the pavements were inspected (shown by arrows) are indicated in plate 1. The results of the rigid pavement survey for those features that were inspected in detail are presented in table 3. This table shows a quantitative breakdown of the various types of defects and a condition rating for each pavement feature inspected in detail. The procedures used for determining the condition rating of a pavement are given in Appendix III of Department of the Army Technical Manual TM 5-827-3, "Rigid Airfield Pavement Evaluation," dated September 1965.

Runway

13. The first 1600 ft of the NE (22R) end of the runway (features R1A, R2B, and R8C), which was overlaid with 4 in. of tar rubber (TR) in 1971, was in excellent condition. Feature R3C, an 8400-ft-long portion of the runway interior, was in excellent condition. It was overlaid with 4 in. of asphaltic concrete (AC) in 1971. Photo 1 is a general view of the AC overlay looking southwest from taxiway 15. A general view of the TR overlay, looking southwest from 750 ft from the NE end of the runway, is shown in photo 2. Photo 3 is a closeup view of the joint between the TR and AC overlays, 1600 ft from the NE end of the runway. Feature R7A, which is 19-in. PCC, was in excellent condition,

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* A slab is the smallest unit, containing no joints, of a given pavement feature.

with only one major defect noted. Feature R6B, the center 100-ft-wide section between sta 116+00 and 121+00, was also in excellent condition. Feature R5C was in excellent condition, and no major defects were noted. Feature R4C, which is 21-in. PCC, was also in excellent condition. Features R10D and R11D were in very good to excellent condition.

Taxiways

14. The primary heavy-load taxiways, taxiways 13, 16, 17, 18, 19, 20, 22, and the SAC operational apron taxiway, were in conditions ranging from good to excellent. The predominate major defect in these taxiways was longitudinal cracking. Photo 4 shows the poor condition of an area of shoulder pavement on taxiway 17. In several areas on this taxiway, the shoulder pavement had been replaced. A repair project was proposed for FY 1973 for other areas. Taxiways 14 and 15 were in good and very good condition, respectively. All taxiways (with the exception of those mentioned above and taxiways 5A, 6, and 11) had been overlaid with either TR or AC. Taxiway 5A was in very good condition, taxiway 6 was in good condition, and taxiway 11 was in poor to failed condition. The overlaid taxiways were in fair to excellent condition. Reflection cracks in taxiway 1 are shown in photo 5. An area of taxiway 12 between taxiways 8 and 21 is used primarily for parking aircraft. A view of this area is shown in photo 6. Photo 7 shows a view of taxiway 9 looking toward the runway from taxiway 21. A general view of taxiway 21 at its intersection with taxiway 8 is shown in photo 8. Paving lane joints in the TR pavement of taxiway 10 and warm-up apron 1 are shown in photo 9. "D" cracking* was noted in approximately 20 percent of the slabs in all PCC taxiways.

Aprons

15. All apron areas on the east side of the runway had been

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* "D" cracking is defined in Bulletin 47 of the Highway Research Board, "Salvaging Old Pavement by Resurfacing," as follows: "A form of disintegration characterized by the successive formation of a series of fine cracks at rather close intervals paralleling edges, joints, and cracks and usually curving across slab corners, the initial cracks forming very close to slab edge and additional cracks progressively developing, each a little farther from the edge than the preceding one. Ordinarily the cracks are filled with a calcareous deposit."

overlaid with TR or AC, except the alert hangar apron. The overlaid apron areas were in fair to very good condition. Photo 10 shows a general view of parking apron E, looking south from the base operations office. A view of parking aprons B and C is shown in photo 11. The alert hangar apron was in poor to failed condition. The SAC operational apron was in fair to good condition. The predominate major defect in this apron was longitudinal cracking, and corner spalls and pop-outs were also prevalent. Warm-up apron 2 was in excellent condition based on the percentage of slabs containing no major defects. The nose dock stubs were in conditions ranging from poor to very good.

Frost Action

Objectives of inspection

16. One member of the team inspected the pavement facilities for evidence of detrimental frost effects. The objectives of the inspection were to determine:

- a. Any adverse effects of frost heave to the pavements during the winter months.
- b. Any traffic-induced failures that might be related to thaw weakening of the subgrades or base courses.

Frost heave

17. The airfield pavements were inspected for surface irregularities indicative of differential frost heaving. The inspection, which was conducted on 31 August, was at a time of the year when the effects of nonuniform frost heave would not be apparent except in severe cases of nonrecoverable roughness. Base Civil Engineering Office personnel were also queried regarding the development of undesirable surface unevenness during the winter. The consensus of the survey team was that the runway did not exhibit roughness detectable in an automobile at speeds of up to 50 mph. All of the rigid pavement of the runway, except the southwest end and first 1600 ft of the interior, had been overlaid with TR or AC. Base personnel reported that the overlays were placed because of extensive pop-outs and joint spalling. Numerous joint

spalls and pop-outs were observed on the portion of the runway that had not been overlaid. The runway was considered to be in excellent structural condition, with no evidence of differential frost heaving.

18. The primary heavy-load taxiways (features T1A, T2A, T3A, T4A, T5A, T6A, and T8B) and the SAC operational apron (feature A1B) were smooth at the time of the inspection, and Base Civil Engineering Office personnel reported no undesirable surface unevenness during the winter or spring. The taxiways were in very good to excellent condition, except for feature T9B, which was in good to very good condition. The SAC operational apron was in only fair to good condition because of numerous longitudinal cracks, corner spalls, and pop-outs.

19. Except for some minor surface unevenness, the runway overruns and blast pads were relatively smooth and in good condition. The combined thicknesses of the overruns and blast pads are 7 to 10 in. and 10 in., respectively. Base personnel reported that numerous small cobbles had heaved up through the overruns and blast pads until a few years ago when these pavements and about 4 in. of the underlying base material were excavated and reconstructed, a process which successfully corrected this defect. The rise of these cobbles and the unevenness of the pavements probably resulted from frost action. Portions of the northwest shoulder of taxiway 17 and the northeast shoulder of taxiway 13 showed evidence of distress with longitudinal cracking and rutting (see photo 4). In several areas, the shoulder pavements had been replaced. A repair project was proposed for FY 1973 for the remaining distressed areas. The damage to these features is considered to have been load induced; however, thaw weakening of underlying materials may have been a major factor.

Freezing indices

20. A design freezing index of 685 degree-days representing the average of the three coldest winters in the past 30 years (1962-63, 1960-61, and 1958-59, in the order of severity) and using temperature data from the Dayton Airport weather station was determined for WAFB. Average monthly temperatures for months entirely within the freezing seasons and average daily temperatures for the transition months at both

ends of the freezing seasons were used in this determination. Seasonal freezing indices since the 1956-57 winter are tabulated below. These values are based entirely on average monthly temperatures.

Freezing Season	Freezing Index degree-days	Freezing Season	Freezing Index degree-days
1956-57	251	1964-65	123
1957-58	393	1965-66	364
1958-59	502	1966-67	193
1959-60	275	1967-68	415
1960-61	499	1968-69	222
1961-62	369	1969-70	522
1962-63	814	1970-71	307
1963-64	390	1971-72	246

Indices determined solely on the basis of average monthly temperatures generally reflect somewhat lower values than do those computed with consideration given to average daily temperatures for the two transition months. The tabulated indices, however, do indicate the relative severity of winters during the period of heavy-load aircraft operations at WAFB. It is significant that the 3 coldest winters in the past 30 years occurred during this period.

21. In view of the fact that experienced freezing indices have been of design magnitude three times since the heavy-load pavements were constructed, the general absence of evidence of frost heaving is significant. The combined thickness of pavement and base required for the prevention of subgrade freezing in the design index year (685 degree-days) ranges from approximately 45 to 52 in., and the thickness required in accordance with limited subgrade frost penetration design is about 35 to 42 in. The specific penetration is dependent on the moisture content and density of the base course and subbase and, to some extent, on pavement thickness. The apron and taxiway features in the principal heavy-load pavement system, the first 1000 ft of the SW end of the runway, and the abutting 600 ft of the runway interior have combined thicknesses of pavement and nonfrost-susceptible base course that are adequate in accordance with the limited subgrade frost penetration design criteria. Most of the remaining portion of the runway interior and the first

1000 ft of the NE end do not provide an adequate combined thickness according to these criteria. However, all of the features mentioned above, except the SAC operational apron (feature A1B), have gravelly subgrades of low frost susceptibility, and there is no evidence that frost heaving has been a factor in pavement performance.

Thaw weakening

22. The extent of thaw weakening of the subgrade and base courses could not be readily determined by inspection of the pavements. Pavement failures usually are repaired soon after they occur and are not easily examined during a condition survey, and it is often impossible to establish by inspection whether a failure is the result of thaw weakening or of deficiencies in the quality or thickness of the various layers of the pavement structure. The degree of thaw weakening and its effects, if any, on the condition of the pavements at WAFB consequently could not be appraised solely by this inspection. Some limited perception of the severity of thaw weakening effects can be gained, however, by comparing the performance of certain pavement features with what might be expected in the light of current frost design criteria.

23. Flexible pavements. The only flexible pavements at WAFB are the blast pads, overruns, and shoulders. The blast pads and overruns have combined pavement and base course thicknesses of 7 to 10 in. and, except for minor unevenness, were in good condition. The blast pads and overruns are not adequate for frost-condition design, but severe frost action was not indicated in the granular subgrade that underlies the runway pavements. Assuming that the subgrade CBR of 50 given for the blast pads in table 2 is also applicable to the abutting overruns, both features are adequate in accordance with current normal-period, heavy-load design criteria. The combined thickness (pavement and base) of the shoulder pavements is not known; however, several areas were in poor condition (paragraph 19). The damage to these features is considered to have been load induced; however, thaw weakening of underlying frost-susceptible materials may have been a factor.

24. Rigid pavements. As is stated in paragraph 21, all of the principal heavy-load apron and taxiway features and the runway from

sta 110+00 to 126+00 were constructed in accordance with the limited subgrade frost penetration design criteria, which assume no reduction in bearing capacity during the frost-melting period. All of these pavements, except the SAC operational apron (feature A1B), have slab thicknesses adequate according to current heavy-load design (265,000-lb gear loads). The SAC operational apron, which has 15-in. slabs, is 2 in. deficient in this respect. This pavement, therefore, is overloaded by B-52 aircraft and significantly is the only feature in the primary heavy-load pavement system that is considered to be in less than good to very good condition. The NE end of the runway and the runway interior, except as noted above, were constructed for a 150,000-lb gear load. All of these pavements, except for a 1000-ft section of the interior (feature R4C), have since been overlaid with 2-1/2 to 4 in. of AC or TR. Since the original 21-in. PCC slabs were constructed on a nonfrost-susceptible base course of variable thickness, the combined thickness of pavement and base is not known. However, the subgrade material is of low frost susceptibility, and the features, which were in excellent condition, are adequate for frost-condition operation of B-52 aircraft if the minimum k_f value is assumed. Thaw weakening, therefore, is not indicated to be a factor in the performance of the heavy-load pavement system at WAFB.

Maintenance

25. Maintenance at WAFB has generally consisted of repairing spalls in the PCC pavements and overlaying rigid pavements with flexible pavements. However, it has been necessary to replace 163 slabs in the SAC operational apron and 15 slabs in the nose dock aprons. In addition to approximately $30,000 spent annually on an in-house basis, the following amounts per year have been spent for contract maintenance:

Year	Contract Costs	Year	Contract Costs
1964	$1,258,516	1967	$ 125,684
1965	48,500	1970	139,566
1966	72,690	1971	1,929,273

Evaluation

26. A summary of the pavement evaluation is presented in table 4 for the principal heavy-load pavements. Previously published pavement evaluations were updated to eliminate aircraft that are no longer in the Air Force inventory and to include aircraft that have been added to the inventory since the last pavement evaluation. The evaluation for each pavement feature is based on the pavement thickness, flexural strength (PCC), base and subbase thickness and strength, strength of the subgrade (CBR or k value), and the structural condition of the pavement.

Conclusions

27. The following statements summarize the findings of this investigation:

- a. The heavy-load pavements were in fair to excellent condition, except for the nose dock stubs, which were in poor to very good condition.
- b. "D" cracking was noted in approximately 20 percent of the slabs in all PCC taxiways.
- c. The pavements other than those designed for heavy loads were in fair to good condition, with the exception of the alert hangar apron and taxiway, which were in poor to failed condition.
- d. Thaw weakening has not had any significant effect on the performance of the heavy-load pavements.

Table 1

Airfield Construction History

Pavement Facility	Pavement Type	Pavement Thickness, in.	Construction Year(s)	Construction Agency
NE-SW (23R-05L) runway				
Original construction	PCC	21	1947	CE
Sta 0+00 to 16+00, overlay	TR	4	1971	AF
Sta 16+00 to 100+00, overlay	AC	4 to 2.5	1971	AF
NE-SW runway, 1st extension				
Sta 100+00 to 110+00	PCC	21	1956	CE
NE-SW runway, 2nd extension				
Sta 110+00 to 126+00	PCC	19, 18, 15, and 13	1959	CE
Taxiway 21				
Original construction	PCC	25	1947-48	CE
Overlay	AC	2.5	1971	AF
Taxiway 8				
Original construction	PCC	10-7-7-10	1942	CE
Overlay	TR	2	--	--
Overlay	AC	2.5	--	--
Taxiway 8 extension	PCC	13.5-9-9-13.5	1943	CE
Overlay	TR	2	--	--
Overlay	AC	3	--	--
Taxiway 12				
Original construction	PCC	13.5-9-9-13.5	1943-44	CE
Overlay	AC	2.5	--	--
Overlay	TR	2.5	--	--
Taxiway 1				
Original construction	PCC	12-8-8-12	1942-43	CE
Overlay	AC	2	--	CE
Overlay	TR	2.5	--	--
Taxiways 2, 2A, 2B				
Original construction	PCC	15-10-10-15	1943	CE
Overlay	AC	2	--	CE
Taxiways 3, 5, 5A, 6, 7	PCC	15-10-10-15	1943	CE
Overlay of taxiways 3, 5, 6, 7	AC	2	--	CE
Taxiway 4	PCC	9	1942-43	CE
Taxiways 9 and 10				
Original construction	PCC	25	1947-48	CE
Overlay	AC	2.5	1970	AF
Taxiway 11	PCC	10	1952	CE

(Continued)

Note: CE denotes Corps of Engineers; AF denotes Air Force; QC denotes Quartermaster Corps.

Table 1 (Concluded)

Pavement Facility	Pavement Type	Pavement Thickness, in.	Construction Year(s)	Construction Agency
Taxiways 13, 14, 15, 16, 17, 18, 19, 20, 22	PCC	15, 18, and 19	1959	CE
Parking aprons A and B				
Original construction	PCC	16.5-11-11-16.5	1943	CE
Overlay	TR	2.5	--	--
Parking apron C				
Original construction	PCC	10-6-6-10	1942	CE
Overlay	TR	2.5	--	--
Parking apron D				
Original construction	PCC	15-10-10-15	1943	CE
Overlay	TR	2.5	--	--
Parking apron E				
Original construction	RPCC	9-6-6-9	1941	CE
Overlay	TR	2.5	--	--
Parking apron E-1				
Original construction	RPCC	8	1932	QC
Overlay	TR	2.5	--	--
Parking apron E-2	RPCC	9-6-6-9	1941	CE
Parking aprons F and G				
Original construction	PCC	15-10-10-15	1943	CE
Overlay	TR	2.5	--	--
SAC operational apron	PCC	15	1959	CE
Readiness hangar apron				
Original construction	PCC	10	1952	CE
Overlay	TR	2.5	1966	AF
Fighter apron and taxiway				
Original construction	PCC	10	1952	CE
Overlay	TR	2.5	1966	AF
Warm-up apron 1				
Original construction	PCC	25	1947-48	CE
Overlay	TR	2.5	1970	AF
Warm-up apron 2	PCC	18	1959	CE
SAC alert stub	PCC	18	1959	CE
Nose dock stubs (5)	PCC	13	1959	CE
Washrack	PCC	12	1959	CE

Table [illegible]

SUMMARY OF PHYSICAL PROPERTY DATA

FACILITY: Wright-Patterson AFB, Ohio — FACILITY NUMBER AND IDENTIFICATION		LENGTH FT	WIDTH FT	OVERLAY PAVEMENT: THICK. IN.	OVERLAY PAVEMENT: DESCRIPTION	OVERLAY PAVEMENT: FLEX. STR PSI	PAVEMENT: THICK. IN.	PAVEMENT: DESCRIPTION	PAVEMENT: FLEX STR PSI	BASE: THICK. IN.	BASE: CLASSIFICATION	BASE: CBR OR K	SUBGRADE: CLASSIFICATION	SUBGRADE: CBR OR K	GENERAL CONDITION OF AREA CONSIDERED
R1A	NE-SW runway 1st 500 ft, NE end	500	300	4	Tar rubber h_E^* = 28.61		21	Reinforced portland cement concrete 3 by 3 in. #6 welded wire mesh	850	Variable	Pit run gravel (GP-GW) nonfrost susceptible	350 k_r=50	(GP-GW) F-1		Excellent
R2B	NE-SW runway 2nd 500 ft, NE end	500	300	4	Tar rubber h_E = 32.06		21	Reinforced portland cement concrete 3 by 3 in. #6 welded wire mesh	850	Variable	Pit run gravel (GP-GW) nonfrost susceptible	350 k_r=50	(GP-GW) F-1		Excellent
R8C	NE-SW runway interior	600	300	4	Tar rubber h_E = 32.06		21	Reinforced portland cement concrete 3 by 3 in. #6 welded wire mesh	850	Variable	Pit run gravel (GP-GW) nonfrost susceptible	350 k_r=50	(GP-GW) F-1		Excellent
R3C	NE-SW runway interior	8,400	160	4	Asphaltic concrete h_E = 32.06		21	Reinforced portland cement concrete 3 by 3 in. #6 welded wire mesh	850	Variable	Pit run gravel (GP-GW) nonfrost susceptible	350 k_r=50	(GP-GM) F-1		Excellent
R9D	NE-SW runway interior; 70-ft edge, each side	8,400	140	[illegible]-1/2	Asphaltic concrete		21	Reinforced portland cement concrete 3 by 3 in. #6 welded wire mesh	850	Variable	Pit run gravel (GP-GW) nonfrost susceptible	350 k_r=50	(GP-GM) F-1		Excellent
R4C	NE-SW runway Sta 100+00 to 110+00	1,000	300				21	Portland cement concrete	800				(GP-GM) F-1	350 k_r=50	Excellent
R5C	NE-SW runway Sta 110+00 to 116+00	600	100				15	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GM) F-1		Excellent
R6B	NE-SW runway Sta 116+00 to 121+00	500	100				18	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GM) F-1		Excellent
R10D	NE-SW runway, outside edges Sta 110+00 to 121+00	1,100	200				13	Portland cement concrete	760	24	Pit run gravel (GP) nonfrost susceptible	350	(GP-GM) F-1		Very good to excellent
R7A	NE-SW runway; 1st 500 ft, center 150 ft	500	150				19	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GM) F-1		Excellent
R11D	NE-SW runway; 1st 500 ft, outside edges	500	150				13	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GM) F-1		Excellent
T1A	Taxiway 13	Variable	75				19	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GC) F-1		Excellent
T2A	Taxiway 17	12,100	75				19	Portland cement concrete 18-19-18	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GC) F-1		Excellent
T3A	SAC operational apron taxiway	2,700	75				19	Portland cement concrete 18-19-18	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GC) F-1		Very good
T4A	Taxiway 16	Variable	75				19	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GC) F-1		Excellent

* Equivalent thickness.

WES FORM 1000 MAR 1958

(1 of 4 sheets)

Table 2 (Continued)

SUMMARY OF PHYSICAL PROPERTY DATA

FACILITY Wright-Patterson AFB, Ohio				OVERLAY PAVEMENT			PAVEMENT			BASE			SUBGRADE		GENERAL CONDITION OF AREA CONSIDERED
FACILITY NUMBER AND IDENTIFICATION		LENGTH FT	WIDTH FT	THICK. IN.	DESCRIPTION	FLEX. STR PSI	THICK. IN.	DESCRIPTION	FLEX. STR PSI	THICK. IN.	CLASSIFICATION	CBR OR K	CLASSIFICATION	CBR OR K	
T5A	Taxiway 19	Variable	75				19	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GC) F-1		Very good
T6A	Taxiway 18	1,000	75				19	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GC) F-1		Very good
T7C	Taxiway 14 Taxiway 15	850 850	75 75				15	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GC) F-1		Good Very good
T8B	Taxiway 20 Taxiway 22	1,800 1,800	75 75				18	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GP-GC) F-1		Good Very good
T9B	Taxiway 1	2,950	50	2	Asphaltic concrete $h_E = 10.6$		8	Portland cement concrete 12-8-8-12	850	6	Pit run gravel (GP) nonfrost susceptible	200 $k_f=35$ CBR=30	(CL) F-3	CBR=5	Fair
T10B	Taxiway 1	1,200	50	2-1/2	Tar rubber $h_E = 10.11$		8	Portland cement concrete	850	6	Pit run gravel (GP) nonfrost susceptible	200 $k_f=35$ CBR=30	(CL) F-3	CBR=5	Fair to good
T11B	Taxiways 2, 2A, and 2B	2,900	50	2	Asphaltic concrete $h_E = 12.13$		10	Portland cement concrete 15-10-10-15	850	6	Pit run gravel (GP) nonfrost susceptible	200 $k_f=35$ CBR=30	(CL) F-3	CBR=5	Fair to good
T12B	Taxiway 3	1,000	50	2	Asphaltic concrete $h_E = 12.13$		10	Portland cement concrete 15-10-10-15	850	6	Pit run gravel (GP) nonfrost susceptible	200 $k_f=35$ CBR=30	(CL) F-3		Fair to good
T13B	Taxiway 4	800	50				9	Portland cement concrete	900	6	Pit run gravel (GP) nonfrost susceptible	200 $k_f=35$ CBR=30	(ML) F-4		Good
T14B	Taxiway 5	1,175	100	2	Asphaltic concrete $h_E = 12.13$		10	Portland cement concrete 15-10-10-15	850	6	Pit run gravel (GP) nonfrost susceptible	200 $k_f=35$ CBR=30	(ML) F-4	CBR=3	Good
T15B	Taxiway 5A	250	75				10	Portland cement concrete 15-10-10-15	850	6	Pit run gravel nonfrost susceptible	200 $k_f=35$ CBR=30	(ML) F-4		Very good
T16B	Taxiway 6A (nonrigid overlay section) Taxiway 7	1,150 2,775	50 50	2	Asphaltic concrete $h_E = 12.13$		10	Portland cement concrete 15-10-10-15	850	24	Pit run gravel nonfrost susceptible	350	(ML) F-4		Fair to good
T17B	Taxiway 8 (south end)	2,900	150	2	Tar rubber $h_E = 8.99$		7	Portland cement concrete 10-7-7-10	900	8	Stabilized gravel F-2	200 $k_f=35$ CBR=30	(ML) F-4	CBR=5	Fair to good

WES FORM MAR 1958 1000

Table 2 (Continued)

SUMMARY OF PHYSICAL PROPERTY DATA

FACILITY Wright-Patterson AFB, Ohio				OVERLAY PAVEMENT			PAVEMENT			BASE			SUBGRADE		GENERAL CONDITION OF AREA CONSIDERED
FACILITY NUMBER AND IDENTIFICATION		LENGTH FT	WIDTH FT	THICK. IN.	DESCRIPTION	FLEX. STR PSI	THICK. IN.	DESCRIPTION	FLEX. STR PSI	THICK. IN.	CLASSIFICATION	CBR OR K	CLASSIFICATION	CBR OR K	
T17B	Taxiway 8	1,250	150	2	Tar rubber $h_E = 8.76$		7	Portland cement concrete	900	8	Stabilized gravel F-2	200 k_r=25 CBR= 30	(ML) F-4	CBR=5	Fair to good
T18B	Taxiway 8 (parking area)	950	150	2-1/2	Asphaltic concrete $h_E = 8.99$		7	Portland cement concrete	900	8	Stabilized gravel F-2	200 k_r=25 CBR= 30	(ML) F-4		Fair to good
T20B	Fighter apron taxiway		50	2-1/2	Tar rubber		10	Portland cement concrete	770	6	Pit run gravel nonfrost susceptible	235 k_r=35	(SM) F-4		Fair to good
T21B	Taxiway 9	1,000	175	2-1/2	Asphaltic concrete		25	Portland cement concrete	850	Variable	Pit run gravel nonfrost susceptible	350 k_r=50	(GP-GW) F-1		Good
T22B	Taxiway 11	600	75				10	Portland cement concrete	800	6	Pit run gravel (GM-GP)	200 k_r=35	(SM) F-3		Poor
T23B	Taxiway 12	1,700	75	2-1/2	Tar rubber		9	Portland cement concrete	850	6	Pit run gravel nonfrost susceptible	200 k_r=35	(ML) F-4		Fair to good
T24B	Taxiway 12	4,450	Variable	2-1/2	Asphaltic concrete		9	Portland cement concrete	850	6	Pit run gravel nonfrost susceptible	200 k_r=35	(ML) F-4		Fair to good
T19B	Taxiway 8	950	150	3	Asphaltic concrete		9	Portland cement concrete	850	6	Pit run gravel nonfrost susceptible	200 k_r=35	(ML) F-4		Good
T19B	Taxiway 8	200	150	2	Tar rubber		9	Portland cement concrete	850	6	Pit run gravel nonfrost susceptible	200 k_r=35	(ML) F-4		Good
T25B	Taxiway 6A	Variable	Variable	2-1/2	Tar rubber		6	Portland cement concrete 9-6-6-9	850	6	Pit run gravel (GP) nonfrost susceptible	200 k_r=35	(SM) F-3		Fair to good
T26B	Taxiway 10	Variable	Variable	2-1/2	Asphaltic concrete		25	Portland cement concrete	850	Variable	Pit run gravel (GP) nonfrost susceptible	200 k_r=25	(SM) F-3		Good
T27B	Taxiway 21	6,830	150	2-1/2	Asphaltic concrete		25	Portland cement concrete	850	Variable	Pit run gravel (GP-GW) nonfrost susceptible	350 k_r=45	(GP-GM) F-1		Excellent
A1B	SAC operational apron	2,700	700				15	Portland cement concrete	760	24 min	Pit run gravel (GP) nonfrost susceptible	350	(GC) F-3		Fair to good
A2B	Parking aprons A and B	1,200	500	2-1/2	Tar rubber		11	Portland cement concrete 16-1/2-11-11-16-1/2	850	6	Pit run gravel nonfrost susceptible	200 k_r=35 CBR= 30	(ML) F-3	CBR=5	Fair to good
A3B	Parking apron C	500	525	2-1/2	Tar rubber		6	Portland cement concrete 10-6-6-10	850	6	Pit run gravel nonfrost susceptible	200 k_r=35 CBR= 30	(ML) F-4	CBR=5	Fair to good

Table 2 (Continued)

SUMMARY OF PHYSICAL PROPERTY DATA

FACILITY Wright-Patterson AFB, Ohio				OVERLAY PAVEMENT			PAVEMENT			BASE			SUBGRADE		GENERAL CONDITION OF AREA CONSIDERED
FACILITY NUMBER AND IDENTIFICATION		LENGTH FT	WIDTH FT	THICK. IN.	DESCRIPTION	FLEX. STR PSI	THICK. IN.	DESCRIPTION	FLEX. STR PSI	THICK. IN.	CLASSIFICATION	CBR OR K	CLASSIFICATION	CBR OR K	
A4B	Parking apron D	2,100	200	2-1/2	Tar rubber		10	Portland cement concrete 15-10-10-15	850	6	Pit run gravel nonfrost susceptible	200 k_f=35 CBR= 30	(ML) F-4	CBR=5	Fair to good
A5B	Parking apron E	1,650	Variable	2-1/2	Tar rubber		6	Portland cement concrete 9-[illegible]-6-9 reinforced #6 gage, 6 by 6 WMR	850	18	Pit run gravel nonfrost susceptible	270 k_f=110 CBR= 30	(GM) F-3	CBR=5	Fair and good
A6B	Parking apron E-1	750	40	2-1/2	Tar rubber		8	Portland cement reinforced #6 gage, 6 by 6 WMR		--	None	--	(SM) F-3	60 k_f=25	Fair to good
A7B	Parking apron E-2	120	40				6	Portland cement concrete 9-6-6-9 reinforced #6 gage, 6 by 6 WMR	850	18	Pit run gravel nonfrost susceptible	270 k_f=110	(GM) F-3		Excellent
A8B	Parking apron F	1,025	600	2-1/2	Tar rubber		10	Portland cement concrete 15-10-10-15	850	6	Pit run gravel nonfrost susceptible	200 k_f=35	(SM) F-3		Fair to good
A9B	Parking apron G	Variable	Variable	2-1/2	Tar rubber		10	Portland cement concrete 15-10-10-15	850	6	Pit run gravel nonfrost susceptible	200 k_f=35	(SM) F-3		Fair to good
A10B	Fighter apron	Variable	Variable	2-1/2	Tar rubber		10	Portland cement concrete	770	6	Pit run gravel nonfrost susceptible	235 k_f=35	(SM) F-3		Fair to good
A11B	Alert hangar apron	Variable	Variable				10	Portland cement concrete	800	6	Pit run gravel nonfrost susceptible	200 k_f=35	(SM) F-3		Poor
A12B	Readiness hangar apron	Variable	Variable	2-1/2	Tar rubber		10	Portland cement concrete	770	6	Pit run gravel nonfrost susceptible	235 k_f=35	(SM) F-3		Fair to good
A13B	Warm-up apron 1	Variable	Variable	2-1/2	Tar rubber		25	Portland cement concrete	850	Variable	Pit run gravel nonfrost susceptible	350 k_f=45	(GP) F-1		Good
A14B	Warm-up apron 2	Variable	Variable				18	Portland cement concrete	760	24 min	Pit run gravel nonfrost susceptible	350	(GP) F-1		Excellent
A15B	Nose dock stubs (5)	Variable	Variable				13	Portland cement concrete	760	24 min	Pit run gravel nonfrost susceptible	350	(GP) F-1		Very good
A16B	Washrack	Variable	Variable				12	Portland cement concrete	800	24 min	Pit run gravel nonfrost susceptible	300	(GP) F-1		Excellent
A17B	SAC alert stub	250	100				18	Portland cement concrete	760	24 min	Pit run gravel nonfrost susceptible	350	(GP-GC) F-1		Good
R12X	NE-SW runway blast pads (2)	150	300				2	Asphaltic concrete		8	4" water bound Macadam 4" dry bound Macadam	CBR= 80		CBR= 50	Good
R13X	NE-SW runway overruns (2)	850	300					Double Bituminous surface treatment		Variable 7 to 10	Gravel (GP-GM) (fill compacted 95% mod. AASHO total depth)				Good

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Table 3

DATE: September 1972

SUMMARY OF DATA - RIGID PAVEMENT CONDITION SURVEY

AIRFIELD: Wright-Patterson AFB, Ohio

FEATURE NO.	FEATURE DESIGNATION	SLAB SIZE FT	APPROX NO. OF SLABS	PAVE. THICK. IN.	NO. OF SLABS CONTAINING INDICATED DEFECTS: I	—	\	Δ	*	K	~	S	J	↓	J	⊕	M	P	O	C	D	% OF SLABS NO DEFECTS	% OF SLABS NO MAJOR DEFECTS	CONDITION
R4C	NE-SW runway Sta 100+00 to 110+00	25 by 25	480	21		1							5		1							98.5	99.7	Excel-lent
R5C	NE-SW runway Sta 110+00 to 116+00	25 by 25	288	15 & 13											6							87.2	100.0	Excel-lent
R10D					29	1					4				1							86.2		Very good
R6B R10D	NE-SW runway 2nd 500 ft SW end	25 by 25	240	18 & 13	22		2				8		1		1							86.3	90.5	Excel-lent
R7A R11D	NE-SW runway 1st 500 ft SW end	25 by 25	240	19 & 13	1						2		1		4							96.7	99.6	Excel-lent
T1A	Taxiway 13	25 by 25	138	19									2		8						30	73.3	100	Excel-lent
T2A	Taxiway 17	25 by 25	1464	18-19-18	27						5		6		18						246	80.4	97.8	Excel-lent
T3A	SAC operational apron taxiway	25 by 25	339	18-19-18	13	3					27	45	9	7	104				253			30.7	95.5	Very good
T4A	Taxiway 16	25 by 25	148	19		1							1		8						10	86.7	99.4	Excel-lent
T5A	Taxiway 19	25 by 25	144	19	2	1	1				8	58	11	13	17				125			26.4	97.9	Very good
T6A	Taxiway 18	25 by 25	235	19	15	1	3	4			44	56	10	17	45				54			35.3	90.2	Very good

REMARKS:

LEGEND:

- I LONGITUDINAL CRACK
- — TRANSVERSE CRACK
- \ DIAGONAL CRACK
- Δ CORNER BREAK
- * SHATTERED SLAB
- K KEYED JOINT FAILURE
- ~ SHRINKAGE CRACK
- S SCALING
- J SPALL ON TRANSVERSE JOINT
- ↓ SPALL ON LONGITUDINAL JOINT
- J CORNER SPALL
- ⊕ SETTLEMENT
- M MAP CRACKING
- P PUMPING JOINT
- O POP-OUT
- C UNCONTROLLED CONTRACTION CRACK
- D "D" CRACKING

WES FORM NO. 2004
JUN 1972

(1 of 3 sheets)

Table 3 (Continued)

DATE: September 1972

SUMMARY OF DATA - RIGID PAVEMENT CONDITION SURVEY

AIRFIELD: Wright-Patterson AFB, Ohio

FEATURE NO.	FEATURE DESIGNATION	SLAB SIZE FT	APPROX NO. OF SLABS	PAVE. THICK. IN.	NO. OF SLABS CONTAINING INDICATED DEFECTS: I	—	\	Δ	✳	K	~	S	J (spall on transverse joint)	↓J (spall on longitudinal joint)	J (corner spall)	⊕	M	P	O	C	D	% OF SLABS NO DEFECTS	% OF SLABS NO MAJOR DEFECTS	CONDITION
T7C	Taxiway 14	25 by 25	109	15	15						5				2						53	39.4	86.2	Good
T7C	Taxiway 15	25 by 25	106	15	10						1				4						29	65.3	90.7	Very good
T8B	Taxiway 20	25 by 25	91	18	10	2	1				21	32	2	1	12				43			28.6	85.7	Good
T8B	Taxiway 22	25 by 25	123	18	8						6	21	1	5	7				31			52.8	93.5	Very good
T15B	Taxiway 5A	25 by 25	45	10		1	3															91.2	91.2	Very good
A1B	SAC operational apron	25 by 25	3065	15	539	49	35	58	2		473	410	23	32	244				1581			33.3	79.1	Fair to good
A14B	Warm-up apron 2	25 by 25	188	18	1	3	6				3		2	1	2						6	90.0	96.3	Excel-lent
A15B	Nose dock stub 4020	25 by 25	18	13	1						3	4	1		2				7			38.9	94.4	Very good
A15B	Nose dock stub 4022	25 by 25	24	13	11	7		1			9		2	1	2				3			25.0	41.7	Poor to failed
A15B	Nose dock stub 4024	25 by 25	20	13	12	3	1	1			10	3	2	1	2				1			25.0	40.0	Poor to failed

REMARKS:

LEGEND:

- I LONGITUDINAL CRACK
- — TRANSVERSE CRACK
- \ DIAGONAL CRACK
- Δ CORNER BREAK
- ✳ SHATTERED SLAB
- K KEYED JOINT FAILURE
- ~ SHRINKAGE CRACK
- S SCALING
- J SPALL ON TRANSVERSE JOINT
- ↓J SPALL ON LONGITUDINAL JOINT
- J CORNER SPALL
- ⊕ SETTLEMENT
- M MAP CRACKING
- P PUMPING JOINT
- O POP-OUT
- C UNCONTROLLED CONTRACTION CRACK
- D "D" CRACKING

WES FORM NO. 2004
JUN 1972

(2 of 3 sheets)

Table 3 (Continued)

DATE: September 1972

SUMMARY OF DATA - RIGID PAVEMENT CONDITION SURVEY

AIRFIELD: Wright-Patterson AFB, Ohio

FEATURE NO.	FEATURE DESIGNATION	SLAB SIZE FT	APPROX NO. OF SLABS	PAVE. THICK. IN.	NO. OF SLABS CONTAINING INDICATED DEFECTS: I	—	\	Δ	✱	K	~	S	J	Ɉ	J	⊕	M	P	O	C	D	% OF SLABS NO DEFECTS	% OF SLABS NO MAJOR DEFECTS	CONDITION
A15B	Nose dock stub 4026	25 by 25	24	13	9	3					9	1	4	4	2							16.7	50.0	Poor to failed
A15B	Nose dock stub 4028	25 by 25	24	13	12	5		1			17	1							2			20.8	41.7	Poor to failed
A17B	Alert stub	25 by 25	44	18	1	1	1	5			2	15			1				33			27.3	84.1	Good

REMARKS:

LEGEND:

- I LONGITUDINAL CRACK
- — TRANSVERSE CRACK
- \ DIAGONAL CRACK
- Δ CORNER BREAK
- ✱ SHATTERED SLAB
- K KEYED JOINT FAILURE
- ~ SHRINKAGE CRACK
- S SCALING
- J SPALL ON TRANSVERSE JOINT
- Ɉ SPALL ON LONGITUDINAL JOINT
- J CORNER SPALL
- ⊕ SETTLEMENT
- M MAP CRACKING
- P PUMPING JOINT
- O POP-OUT
- C UNCONTROLLED CONTRACTION CRACK
- D "D" CRACKING

WES FORM NO. 2004
JUN 1972

(3 of 3 sheets)

Table 4

SUMMARY OF PAVEMENT EVALUATION

NAME OF AIRFIELD: Wright-Patterson AFB

DATE OF EVALUATION MONTH: September YR: 1972

LOAD-CARRYING CAPACITY IN LB OF GROSS PLANE LOAD FOR INDICATED LANDING GEAR TYPES AND CONFIGURATIONS

FEATURE NO.	FEATURE DESIGNATION	PAVEMENT OPERATIONAL USE	TRICYCLE ARRANGEMENT: SINGLE 100-PSI TIRE PRESSURE (1)	SINGLE 100-SQ-IN. CONTACT AREA (2)	SINGLE 241-SQ-IN. CONTACT AREA (3)	TW 28-IN. C-C 226-SQ-IN. CONTACT AREA EACH TIRE (4)	SINGLE TANDEM 60-IN. SPACING 400-SQ-IN. CONTACT AREA (5)	TW 37-IN. C-C 267-SQ-IN. CONTACT AREA EACH TIRE (6)	TW 44-IN. C-C 630-SQ-IN. CONTACT AREA EACH TIRE (7)	TWIN TANDEM 33 IN. × 48 IN. 208-SQ-IN. CONTACT AREA EACH TIRE (8)	C-5A GEAR CONFIGURATION (9)	BICYCLE: TWIN TWIN SPCG 37-62-37 267-SQ-IN. CONTACT AREA EACH TIRE (10)	REMARKS
R1A	NE-SW runway; 1st 500 ft, NE end	Capacity Frost capacity	155,000+ 155,000+	85,000+ 85,000+	155,000+ 155,000+	220,000+ 220,000+	200,000+ 200,000+	330,000+ 330,000+	330,000+ 330,000+	380,000+ 380,000+	800,000+ 800,000+	600,000+ 600,000+	
R2B	NE-SW runway; 2nd 500 ft, NE end	Capacity Frost capacity	155,000+ 155,000+	85,000+ 85,000+	155,000+ 155,000+	220,000+ 220,000+	200,000+ 200,000+	330,000+ 330,000+	330,000+ 330,000+	380,000+ 380,000+	800,000+ 800,000+	600,000+ 600,000+	
R8C R3C	NE-SW runway interior	Capacity Frost capacity	155,000+ 155,000+	85,000+ 85,000+	155,000+ 155,000+	220,000+ 220,000+	200,000+ 200,000+	330,000+ 330,000+	330,000+ 330,000+	380,000+ 380,000+	800,000+ 800,000+	600,000+ 600,000+	
R4C	NE-SW runway, sta 100+00 to 110+00	Capacity Frost capacity	155,000+ 155,000+	85,000+ 85,000+	155,000+ 155,000+	220,000+ 220,000+	200,000+ 200,000+	330,000+ 330,000+	330,000+ 330,000+	380,000+ 380,000+	800,000+ 800,000+	600,000+ 560,000	
R5C T7C	NE-SW runway; sta 110+00 to 116+00, center 100 ft Taxiways 14 and 15	Capacity	155,000+	85,000+	155,000+	220,000+	200,000+	330,000+	330,000+	380,000+	800,000+	580,000	
R6B T8B A14B A17B	NE-SW runway; 2nd 500 ft, SW end, center 100 ft Taxiways 22 and 20 Warm-up apron 2 Alert stub	Capacity Frost capacity	155,000+ 155,000+	85,000+ 85,000+	155,000+ 155,000+	220,000+ 220,000+	200,000+ 200,000+	330,000+ 330,000+	330,000+ 330,000+	380,000+ 380,000+	800,000+ 800,000+	560,000 540,000	
R7A T1A T2A T3A T4A T5A T6A	NE-SW runway; 1st 500 ft, SW end, center 150 ft Taxiway 13 Taxiway 17 SAC operational apron taxiway Taxiway 16 Taxiway 19 Taxiway 18	Capacity	155,000+	85,000+	155,000+	220,000+	200,000+	330,000+	330,000+	380,000+	800,000+	570,000	
A1B	SAC ~~operational~~ apron	Capacity	155,000+	85,000+	155,000+	220,000+	200,000+	320,000	330,000+	380,000+	800,000+	440,000	

Note: + sign denotes allowable gross loading greater than maximum gross weight of any existing aircraft having indicated gear configuration.

WES FORM NO. 999 JUNE 1972 EDITION OF AUG 1960 IS OBSOLETE.

Photo 1. General view of AC overlay of runway interior (feature R3C) looking southwest from taxiway 15

Photo 2. General view of TR overlay near NE end of runway

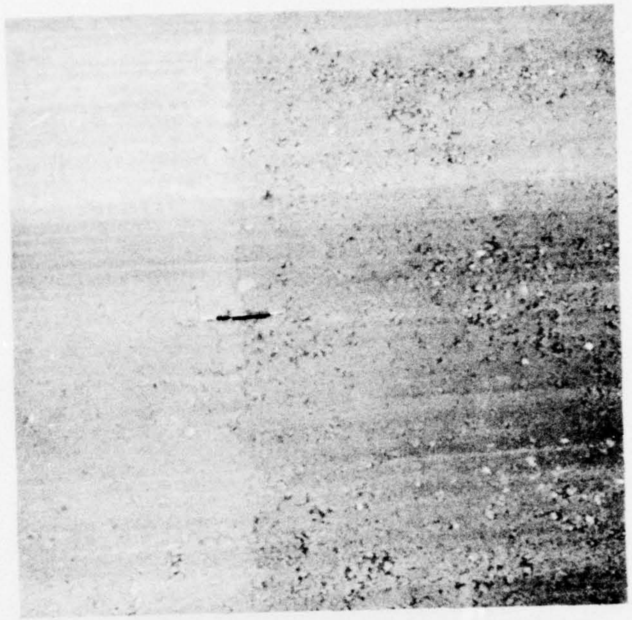


Photo 3. Closeup view of joint between AC and TR overlays of runway

Photo 4. Poor condition of area of shoulder pavement on taxiway 17

Photo 5. Reflection cracks in AC pavement of taxiway 1

Photo 6. View of portion of taxiway 12 used primarily for parking

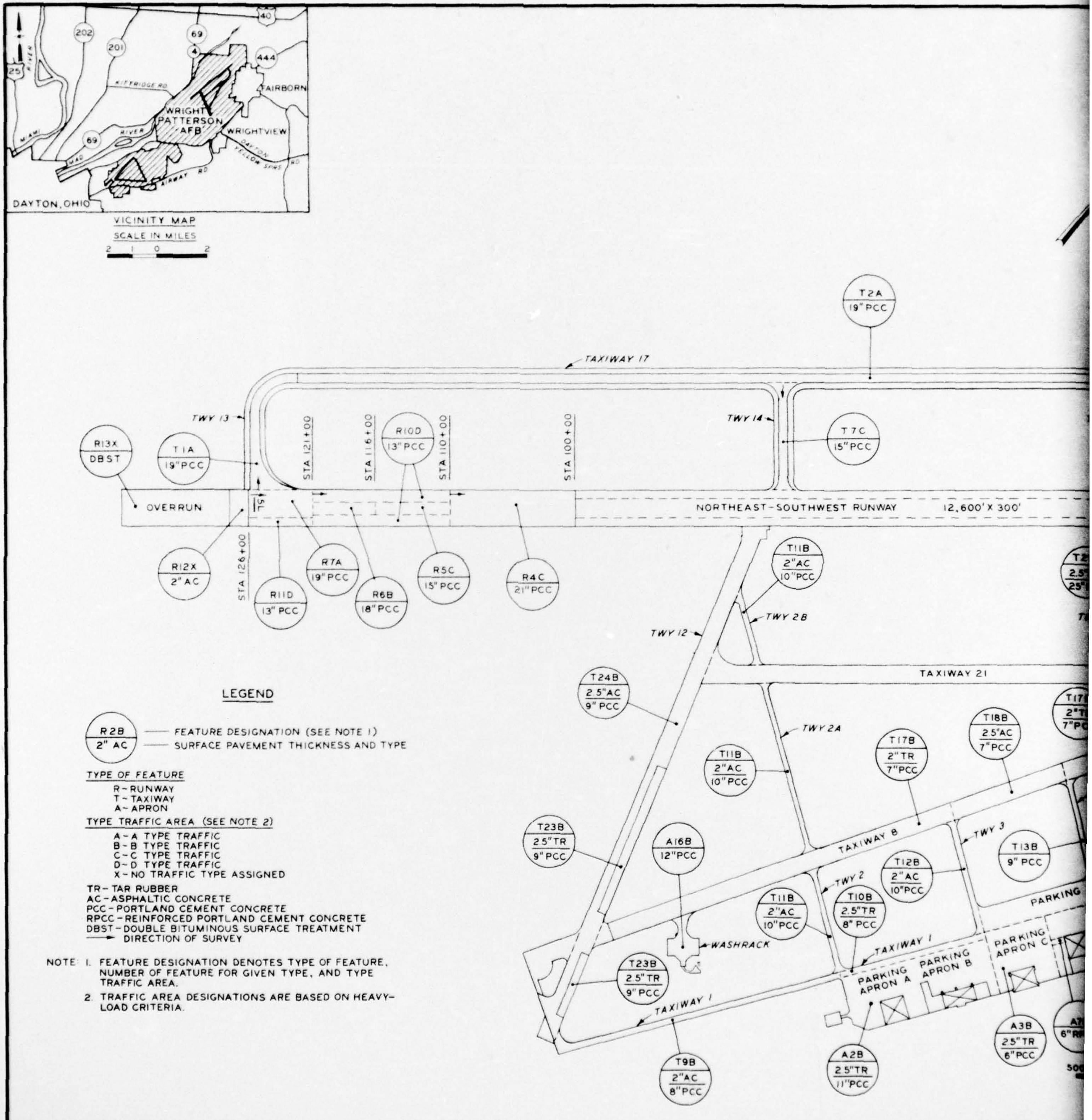
Photo 7. General view of taxiway 9

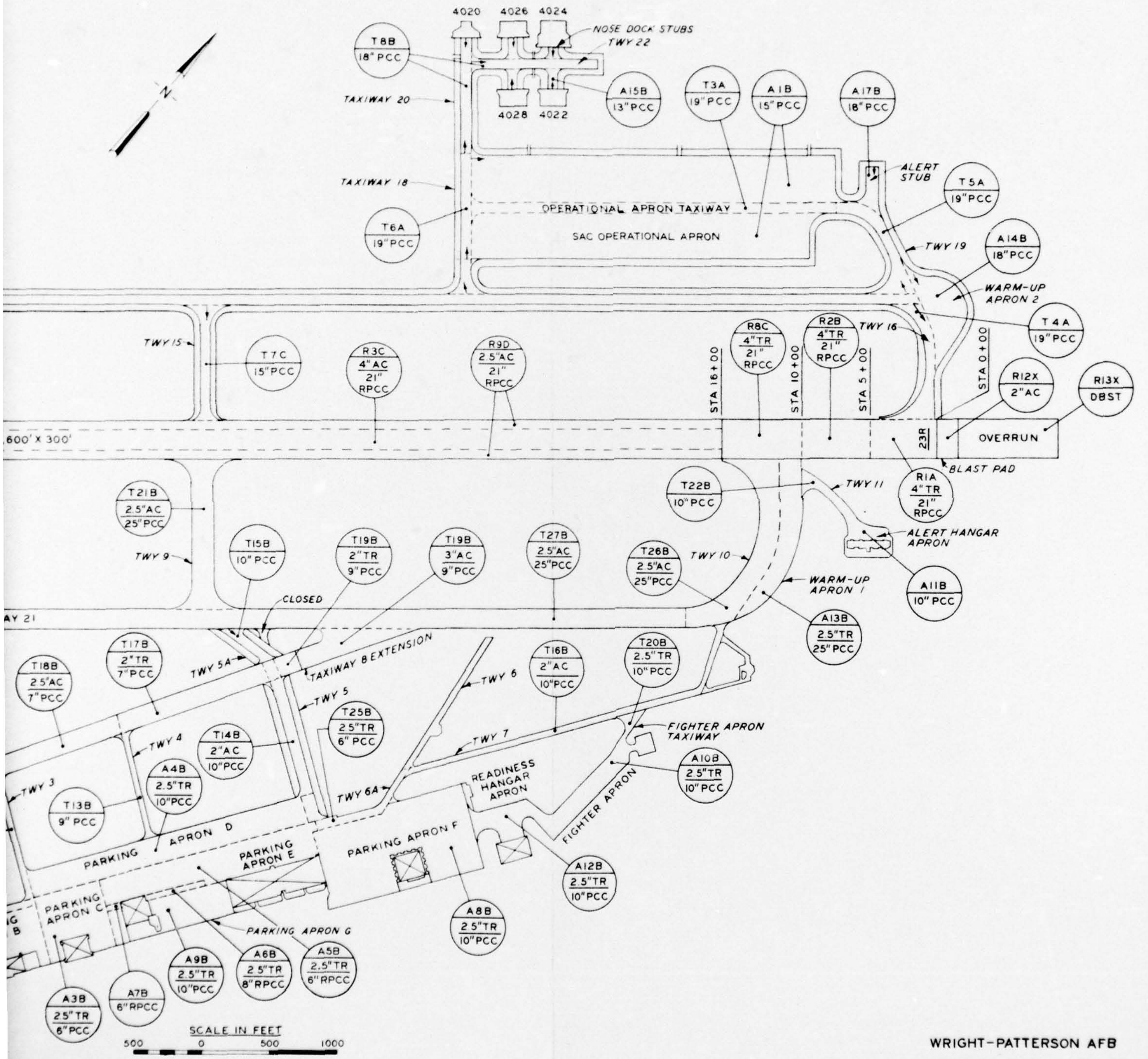
Photo 8. Good condition of taxiway 21 at intersection with taxiway 8

Photo 9. Paving lane joints in taxiway 10 and warm-up apron 1

Photo 10. General view of parking apron E

Photo 11. General view of parking aprons B and C

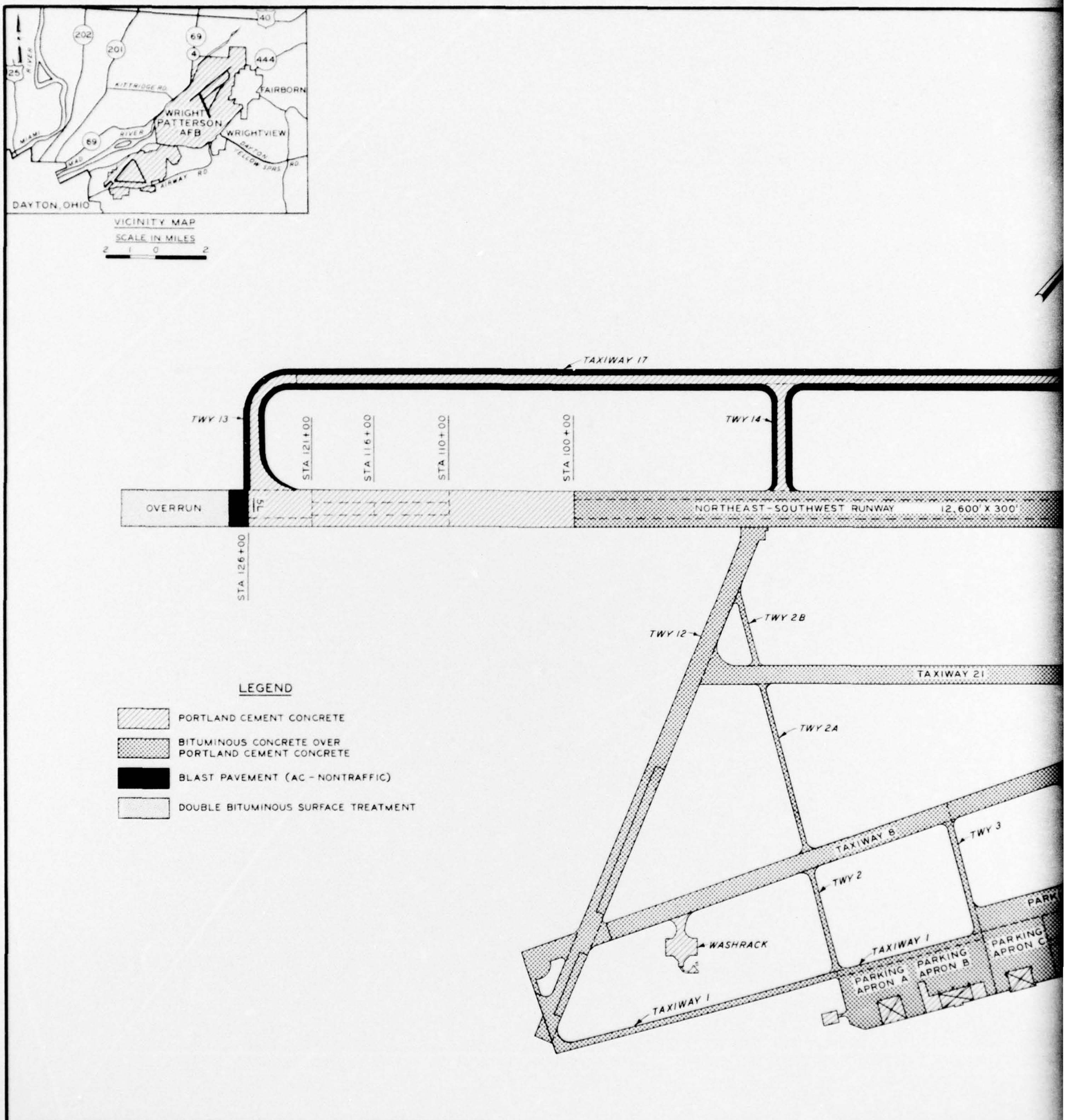

DAYTON, OHIO
WRIGHT PATTERSON AFB
FAIRBORN
WRIGHTVIEW
VICINITY MAP
SCALE IN MILES
2 1 0 2
TAXIWAY 17
TWY 13
TWY 14
T2A 19" PCC
R13X DBST
T1A 19" PCC
R10D 13" PCC
T7C 15" PCC
STA 121+00
STA 116+00
STA 110+00
STA 100+00
STA 126+00
OVERRUN
NORTHEAST-SOUTHWEST RUNWAY 12,600' X 300'
R12X 2" AC
R11D 13" PCC
R7A 19" PCC
R6B 18" PCC
R5C 15" PCC
R4C 21" PCC
T11B 2" AC 10" PCC
TWY 2B
TWY 12
TAXIWAY 21
T24B 2.5" AC 9" PCC
TWY 2A
T11B 2" AC 10" PCC
T17B 2" TR 7" PCC
T18B 2.5" AC 7" PCC
T23B 2.5" TR 9" PCC
A16B 12" PCC
TAXIWAY 8
TWY 3
T13B 9" PCC
T12B 2" AC 10" PCC
TWY 2
T11B 2" AC 10" PCC
T10B 2.5" TR 8" PCC
WASHRACK
TAXIWAY 1
PARKING APRON A
PARKING APRON B
PARKING APRON C
PARKING
T23B 2.5" TR 9" PCC
TAXIWAY 1
T9B 2" AC 8" PCC
A2B 2.5" TR 11" PCC
A3B 2.5" TR 6" PCC
LEGEND
R2B 2" AC — FEATURE DESIGNATION (SEE NOTE 1) — SURFACE PAVEMENT THICKNESS AND TYPE
TYPE OF FEATURE
R - RUNWAY
T - TAXIWAY
A - APRON
TYPE TRAFFIC AREA (SEE NOTE 2)
A - A TYPE TRAFFIC
B - B TYPE TRAFFIC
C - C TYPE TRAFFIC
D - D TYPE TRAFFIC
X - NO TRAFFIC TYPE ASSIGNED
TR - TAR RUBBER
AC - ASPHALTIC CONCRETE
PCC - PORTLAND CEMENT CONCRETE
RPCC - REINFORCED PORTLAND CEMENT CONCRETE
DBST - DOUBLE BITUMINOUS SURFACE TREATMENT
DIRECTION OF SURVEY
NOTE: 1. FEATURE DESIGNATION DENOTES TYPE OF FEATURE, NUMBER OF FEATURE FOR GIVEN TYPE, AND TYPE TRAFFIC AREA.
2. TRAFFIC AREA DESIGNATIONS ARE BASED ON HEAVY-LOAD CRITERIA.



WRIGHT-PATTERSON AFB

AIRFIELD LAYOUT

PLATE 1



202
201
69
4
40
444
25
RIVER
KITTRIDGE RD.
FAIRBORN
WRIGHT PATTERSON AFB
WRIGHTVIEW
MIAMI
RIVER
MAD
69
DAYTON YELLOW SPRS. RD.
AIRWAY RD.
DAYTON, OHIO
VICINITY MAP
SCALE IN MILES
2 1 0 2
TAXIWAY 17
TWY 13
TWY 14
STA 121+00
STA 116+00
STA 110+00
STA 100+00
OVERRUN
NORTHEAST-SOUTHWEST RUNWAY 12,600' X 300'
STA 126+00
TWY 2B
TWY 12
TAXIWAY 21
TWY 2A
LEGEND
PORTLAND CEMENT CONCRETE
BITUMINOUS CONCRETE OVER PORTLAND CEMENT CONCRETE
BLAST PAVEMENT (AC - NONTRAFFIC)
DOUBLE BITUMINOUS SURFACE TREATMENT
TAXIWAY 8
TWY 3
TWY 2
WASHRACK
TAXIWAY 1
PARKING APRON A
PARKING APRON B
PARKING APRON C
TAXIWAY 1

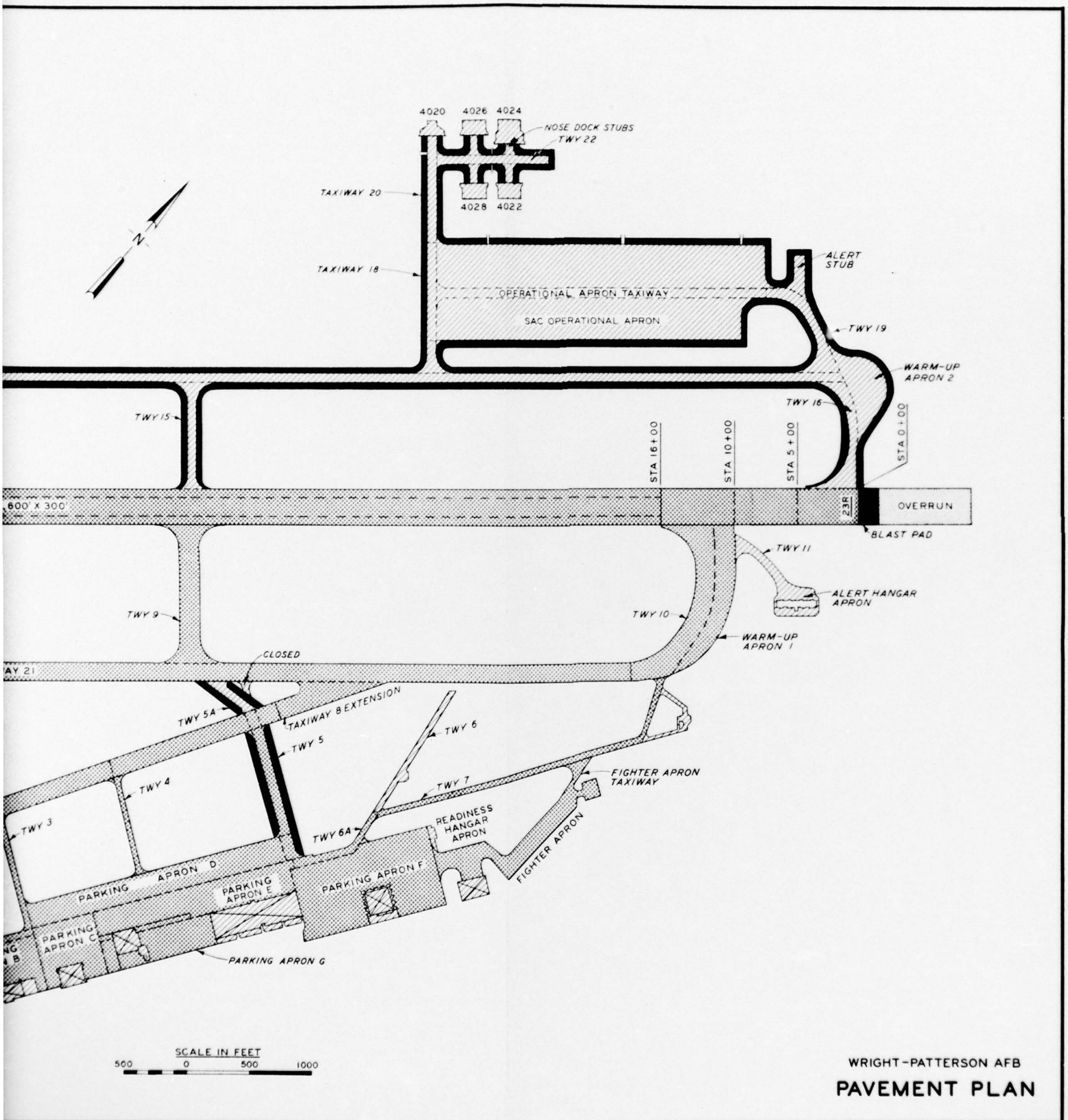

4020
4026
4024
NOSE DOCK STUBS
TWY 22
4028
4022
TAXIWAY 20
TAXIWAY 18
ALERT STUB
OPERATIONAL APRON TAXIWAY
SAC OPERATIONAL APRON
TWY 19
WARM-UP APRON 2
TWY 16
TWY 15
STA 16+00
STA 10+00
STA 5+00
STA 0+00
600' X 300'
23R
OVERRUN
BLAST PAD
TWY 11
ALERT HANGAR APRON
TWY 9
TWY 10
WARM-UP APRON 1
CLOSED
AY 21
TWY 5A
TAXIWAY 8 EXTENSION
TWY 6
TWY 5
FIGHTER APRON TAXIWAY
TWY 7
TWY 4
TWY 3
TWY 6A
READINESS HANGAR APRON
FIGHTER APRON
PARKING APRON D
PARKING APRON E
PARKING APRON F
PARKING APRON C
N B
PARKING APRON G
SCALE IN FEET
500 0 500 1000
WRIGHT-PATTERSON AFB
PAVEMENT PLAN

PLATE 2